Replacement Sheet

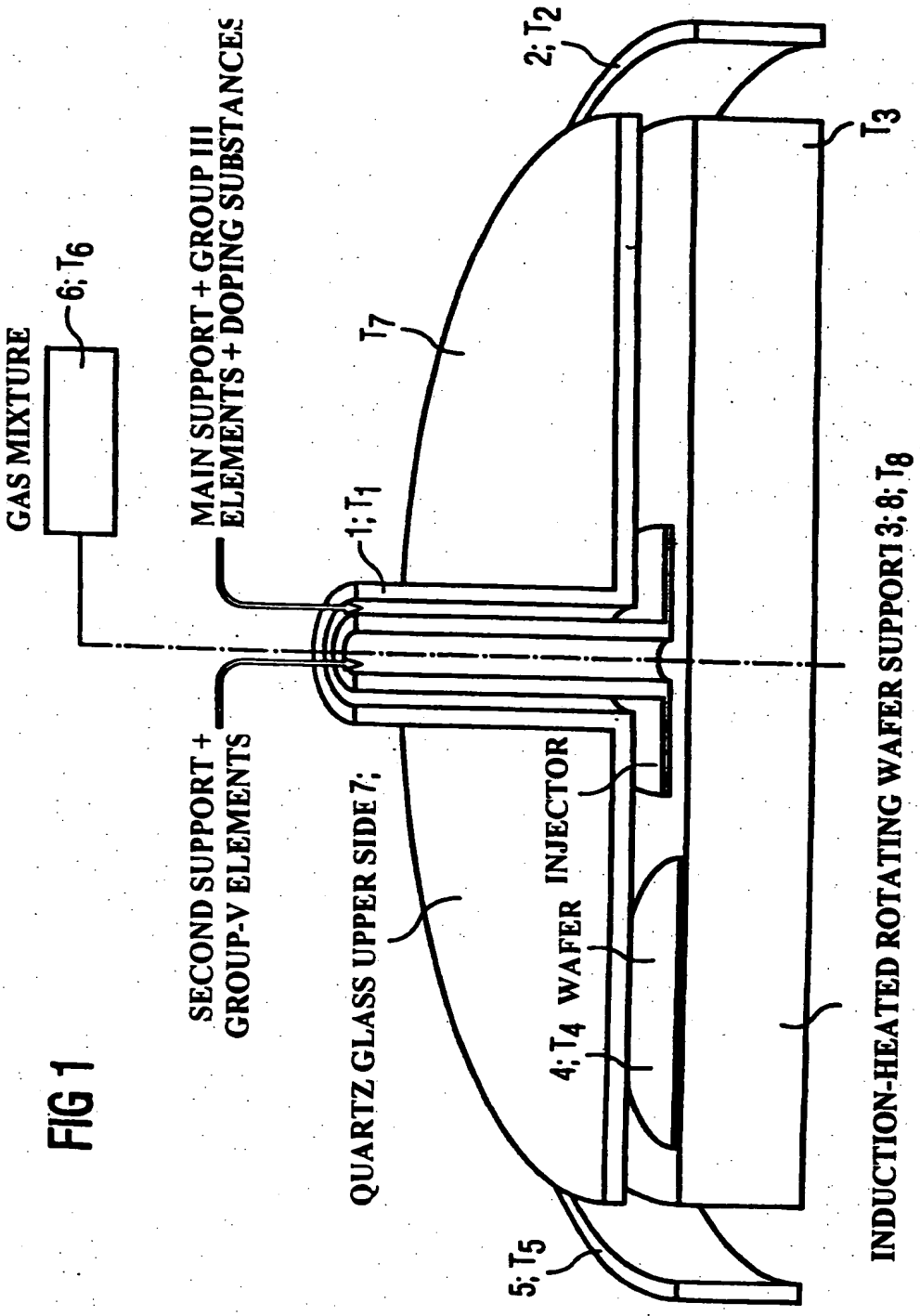
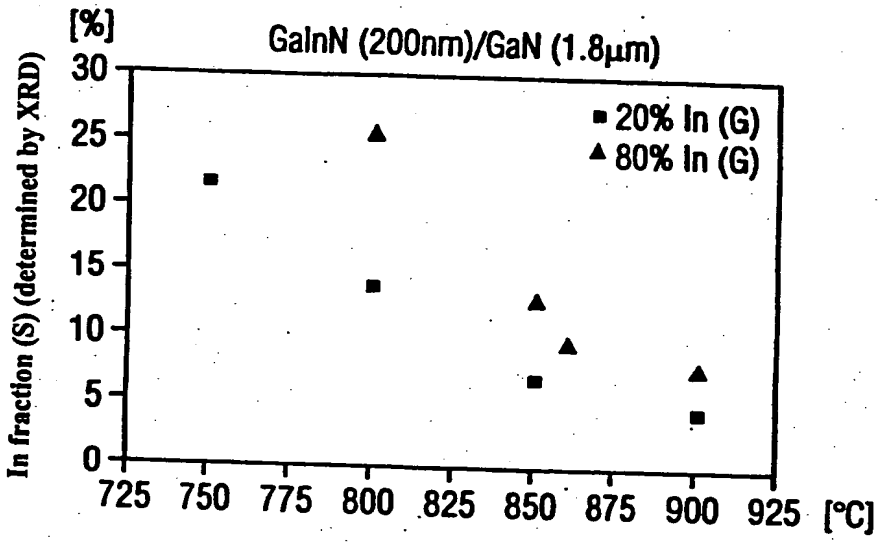


FIG 1

Replacement Sheet

FIG 2

In fraction as a function of the production temperature



Replacement Sheet

LOG data of the AIXTRON MOVPE system

InGaN/G aN DH structure

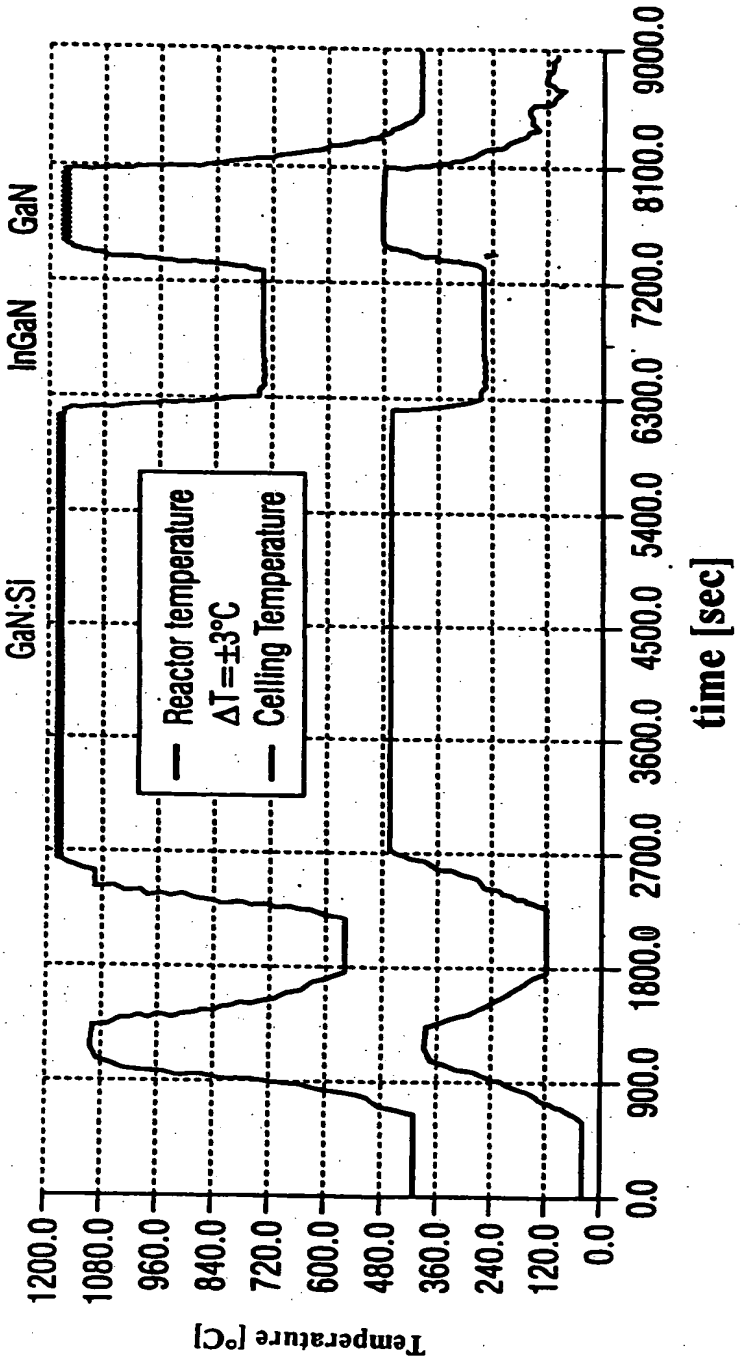
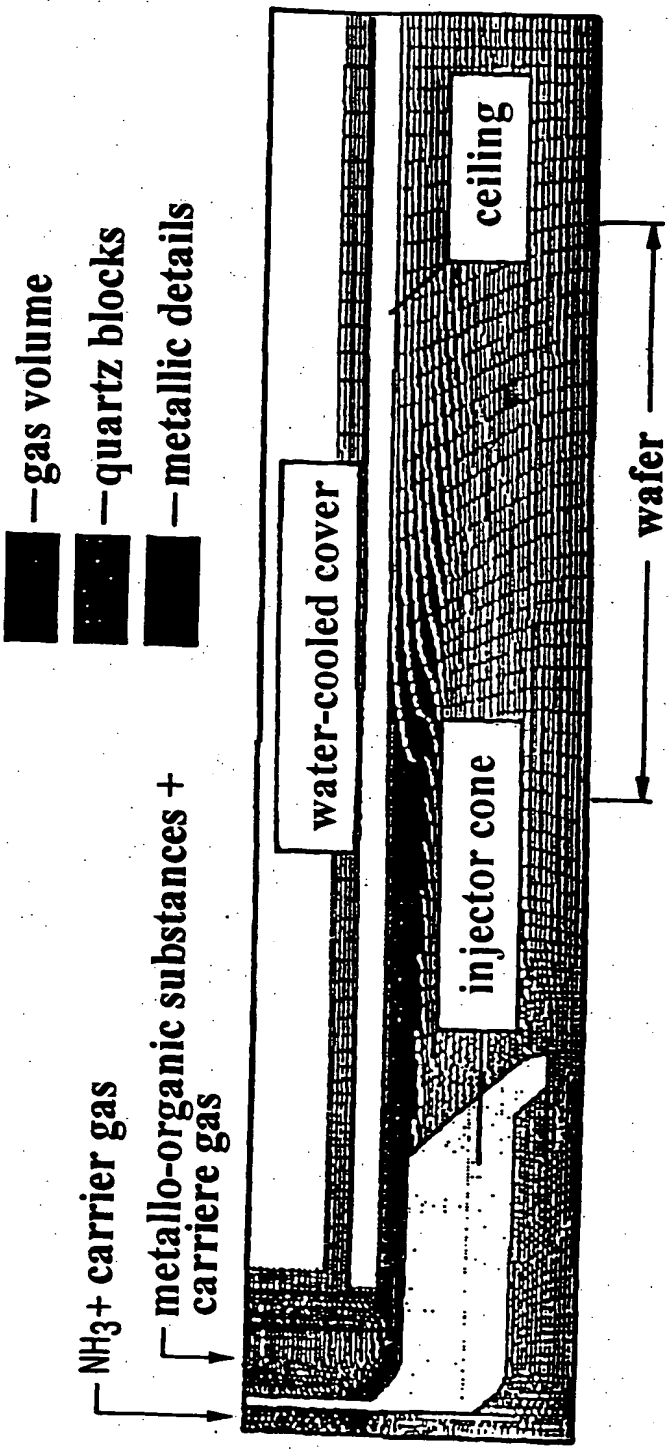


FIG 3

Mass Transfer Model

Schematic illustration the computing range and the finite volume lattice for analysing the mass transfer

FIG 3a



Temperature Distribution

The model explains:

-mixture and reaction of precursor flows
-grey diffuse radiation
-conjugated heat transmission

FIG 3b

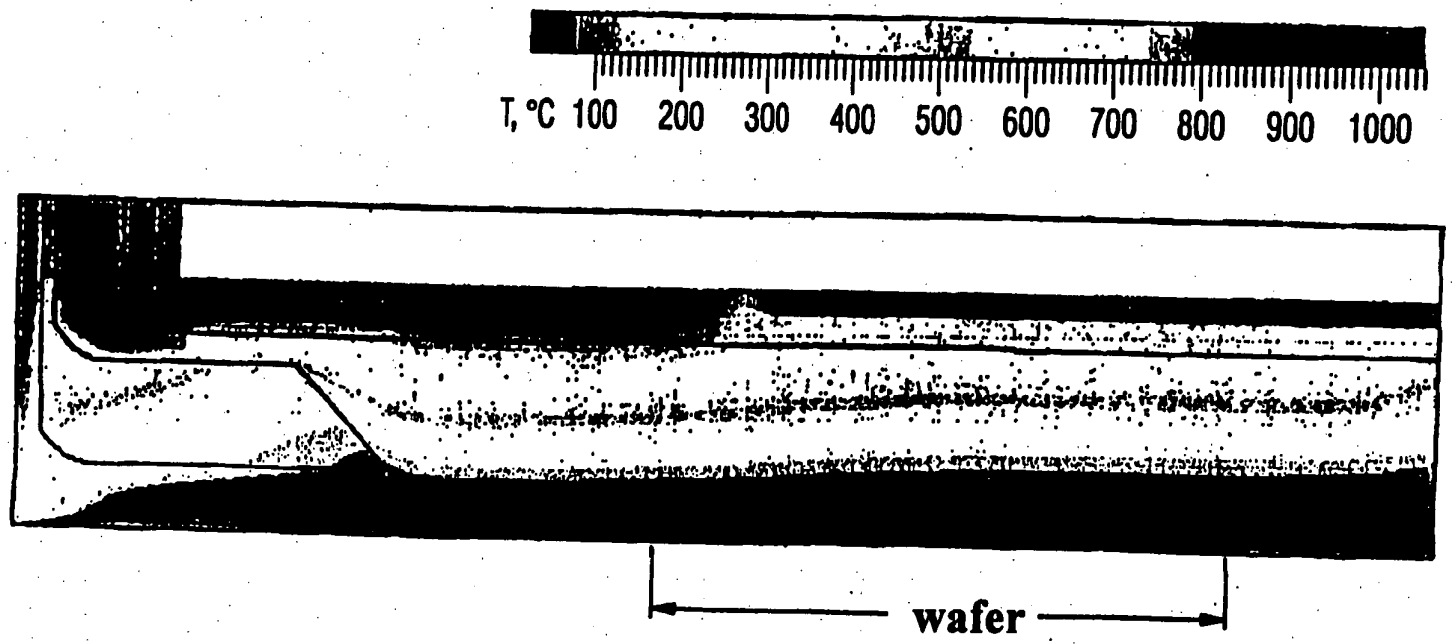
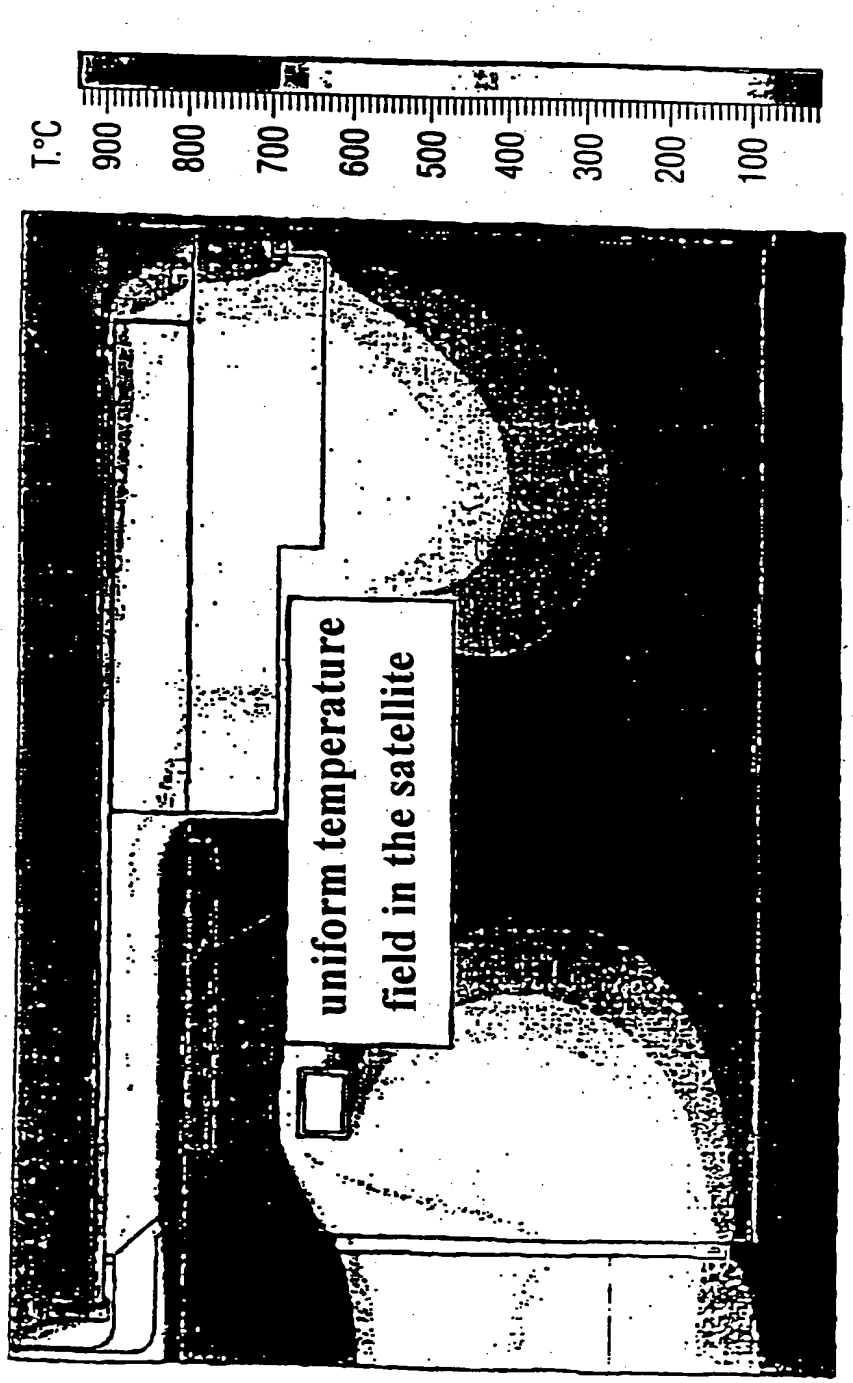


FIG 3C

Detailed Thermal Model

Temperature Distribution

Total output 14 KW; cooling-gas mixture 50%H_2+50%N_2



Replacement Sheet

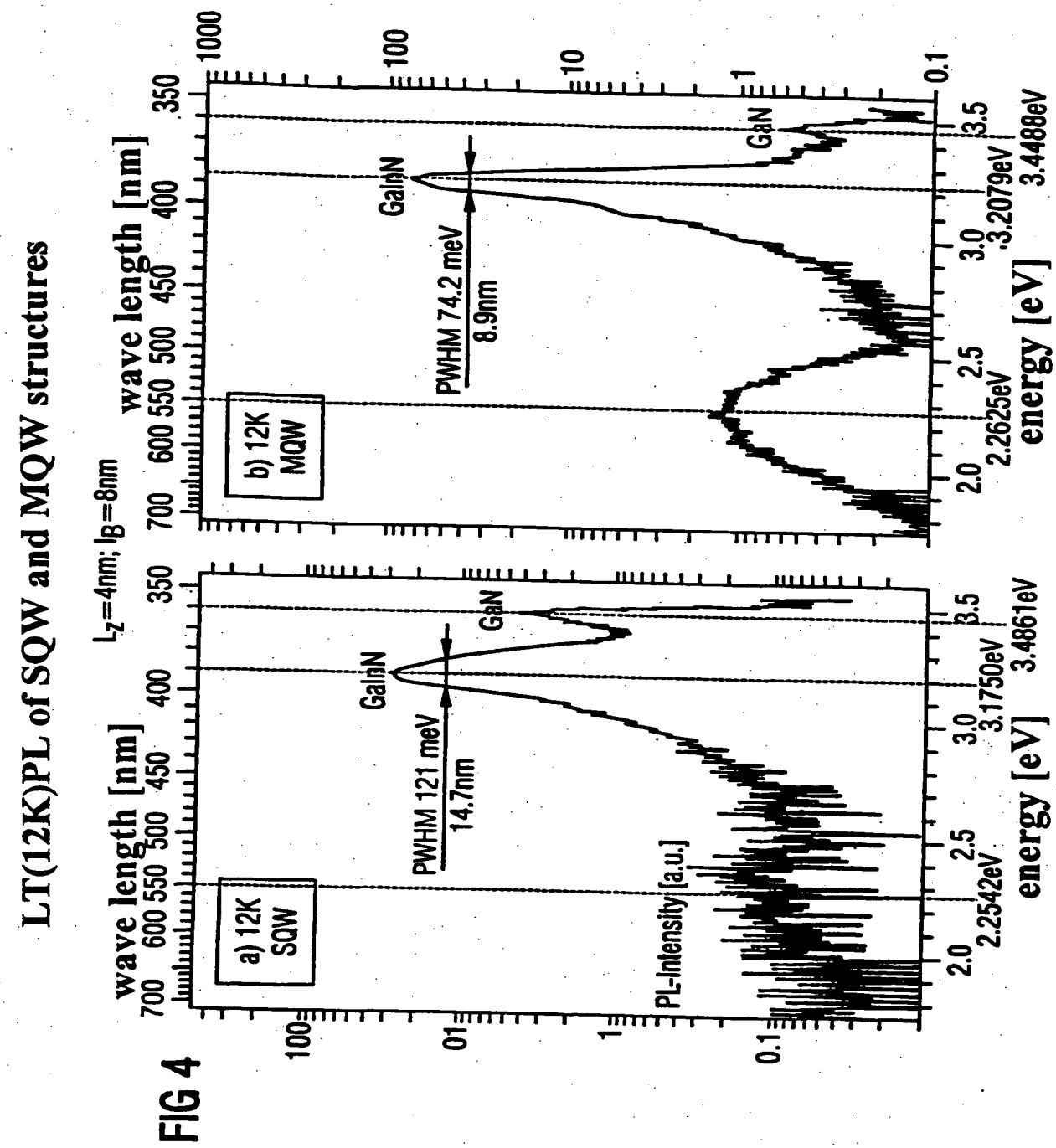


FIG 4

Replacement Sheet

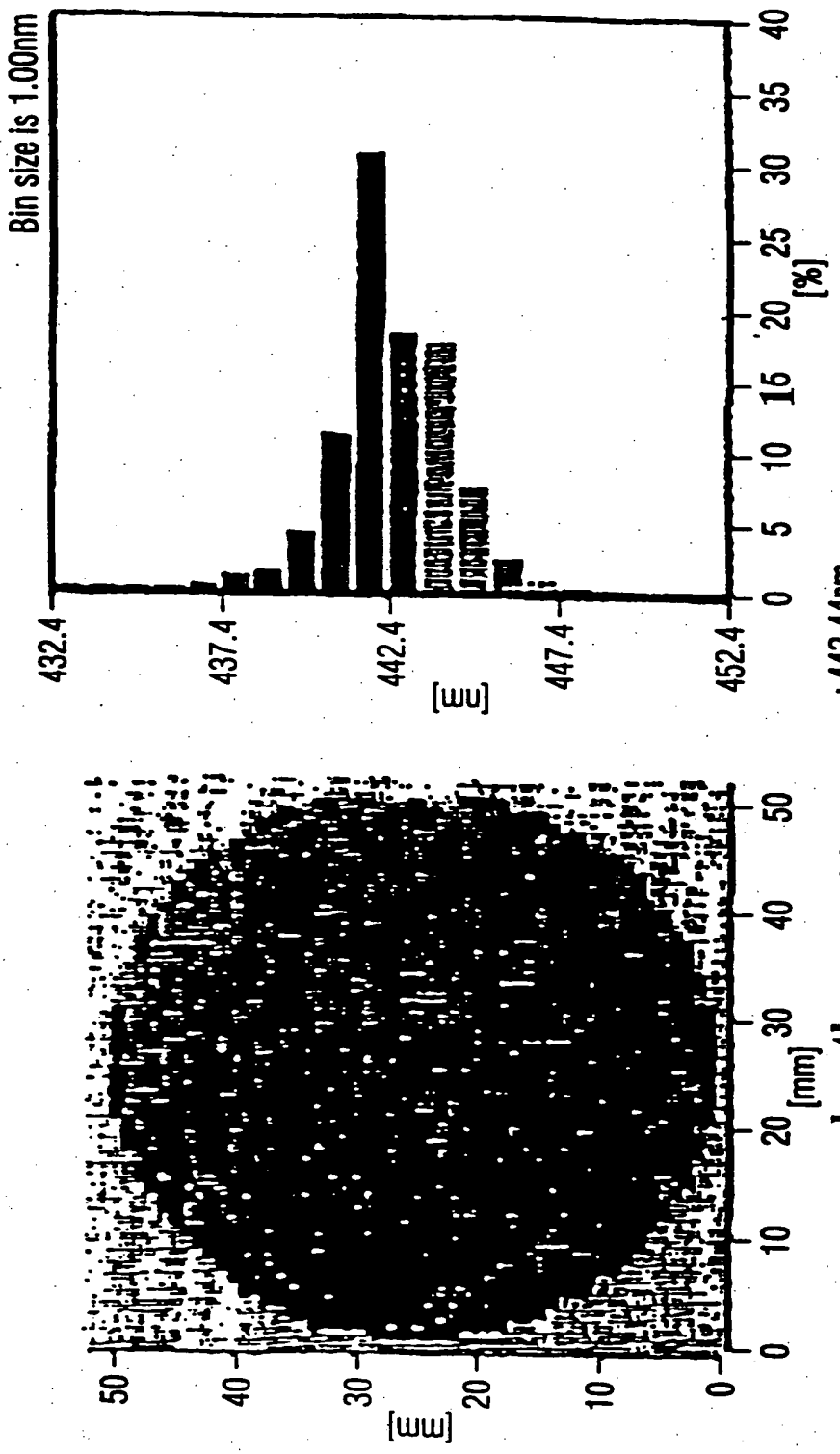
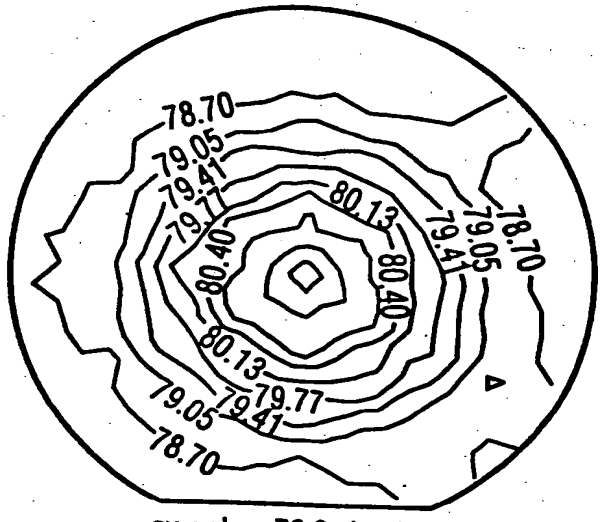


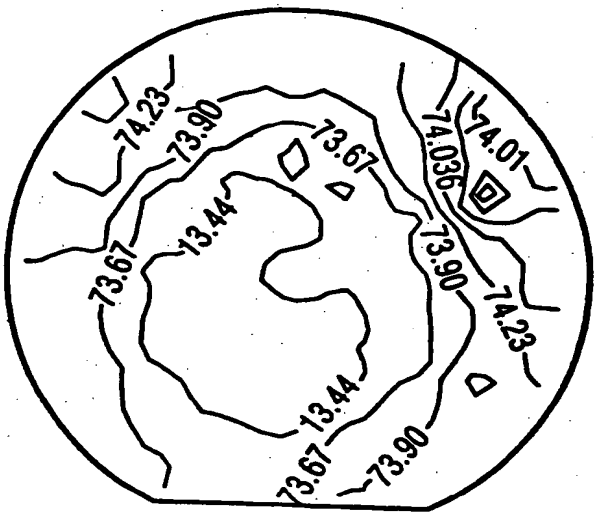
FIG 5

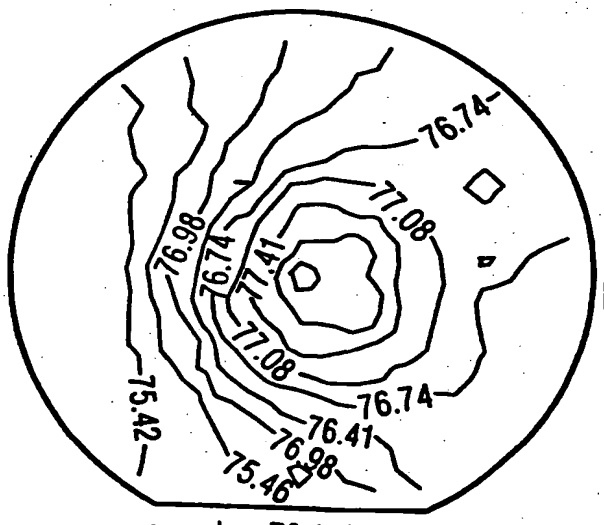
Replacement Sheet

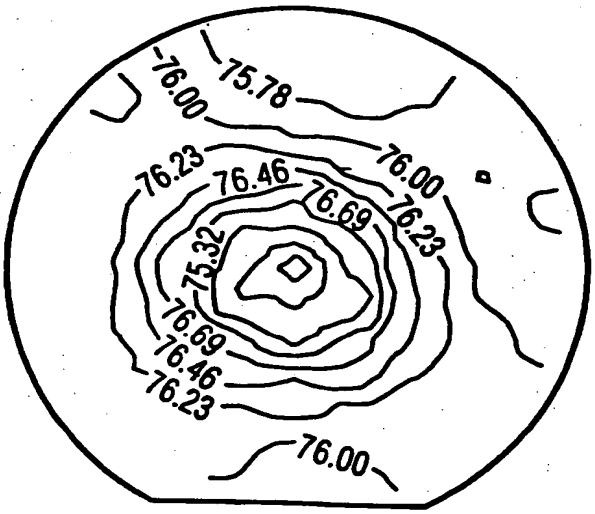
FIG 6

Wafer-to-wafer homogeneity of n-doped GaN/InGaN-DHS







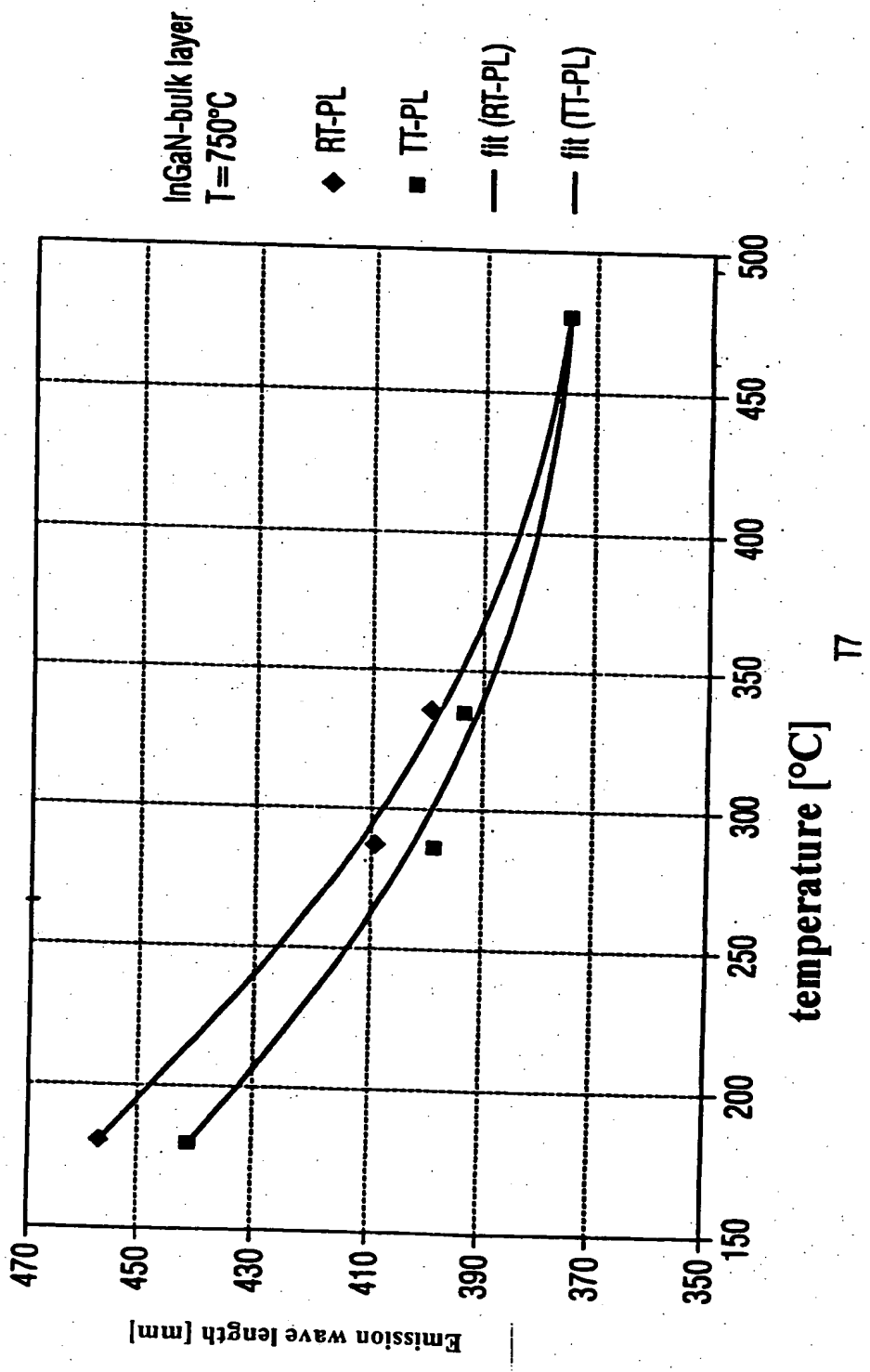


Wafer-to-wafer r.m.s. deviation: 2,7%

Replacement Sheet

FIG 7

In incorporation as a function of the temperature of the upper side of the reaction chamber



-reaction chamber underside T9
-reaction chamber injector T1
-reaction chamber ring T2
-reaction chamber upper side T7
-RF coil T8

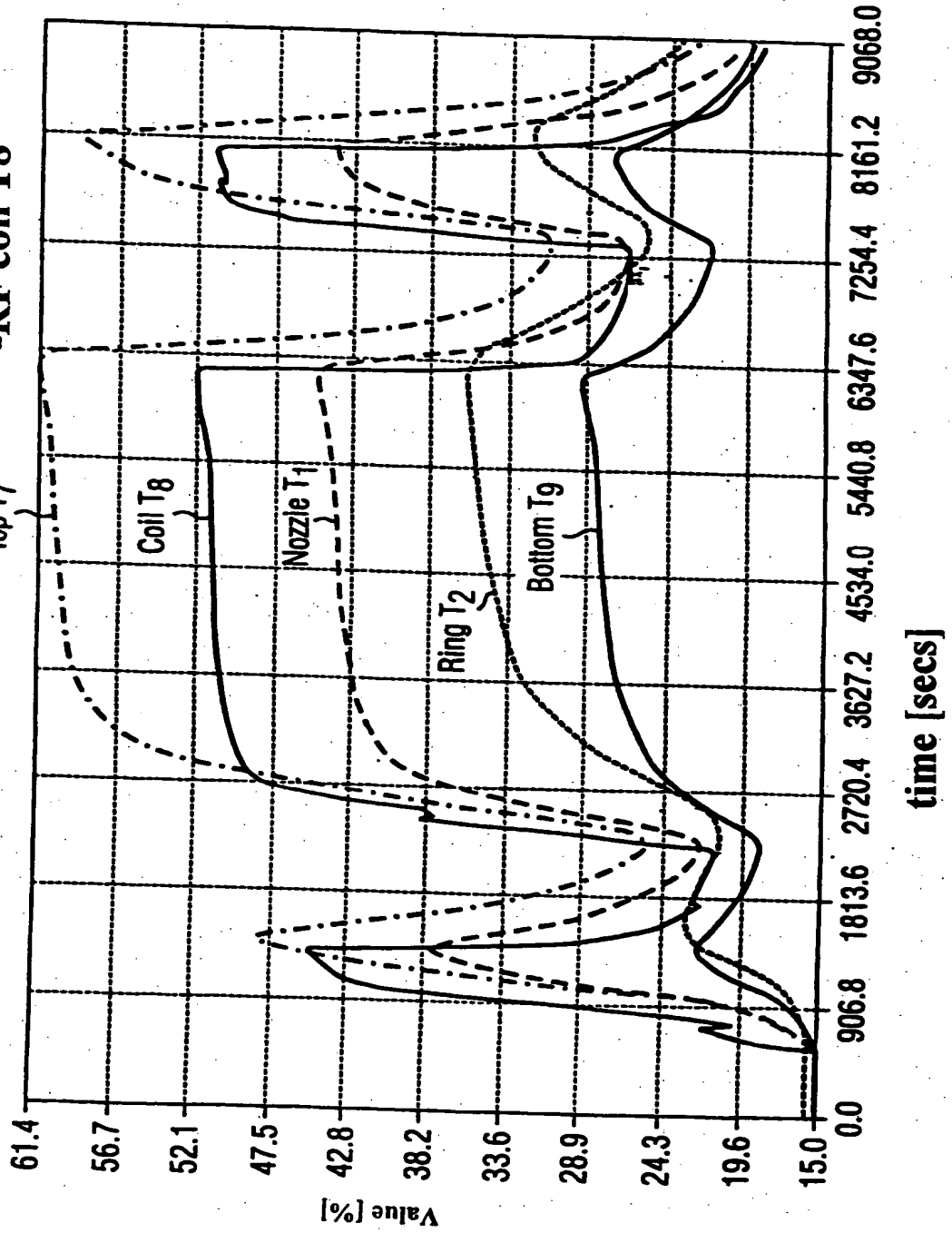


FIG 8